



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Proposed Amendments to Building Appliance Rules 9-4 and 9-6

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Amy Dao
Sr. Environmental Planner
adao@baaqmd.gov

Presentation Outline



- Background
- Health and equity impacts
- Schedule and next steps
- Incentives

Background: Rules for Amendment



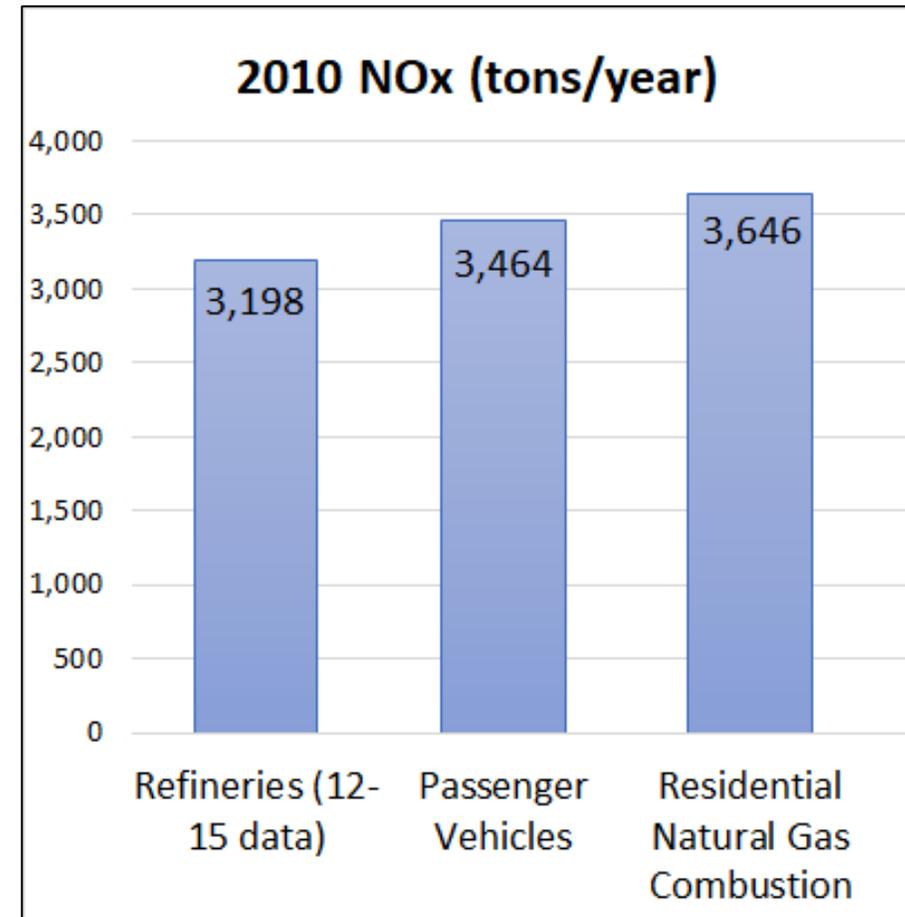
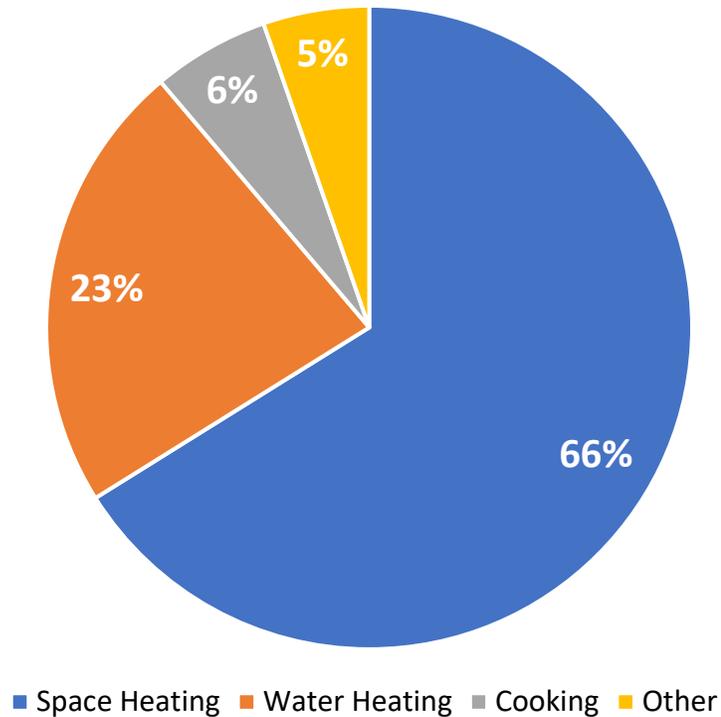
- To address Oxides of Nitrogen (NO_x) emissions associated with buildings, amend:
 - Regulation 9, Rule 4 (Rule 9-4): Nitrogen Oxides from Fan Type Residential Central Furnaces
 - Regulation 9, Rule 6 (Rule 9-6): Nitrogen Oxides from Natural Gas-Fired Boilers and Water Heaters
- Emissions Standard & Compliance Date:

| | | |
|-------------------------|----------|---|
| Ultra low Nox (14 ng/J) | 1/1/2024 | Central natural gas-fired furnace |
| Zero NO _x | 1/1/2027 | Water heaters less than 75,000 BTU/hr |
| Zero NO _x | 1/1/2029 | All applicable natural gas-fired furnaces |
| Zero NO _x | 1/1/2031 | Water heaters 75,000 to 2 million BTU/hr |

Background: Residential Appliance Emissions



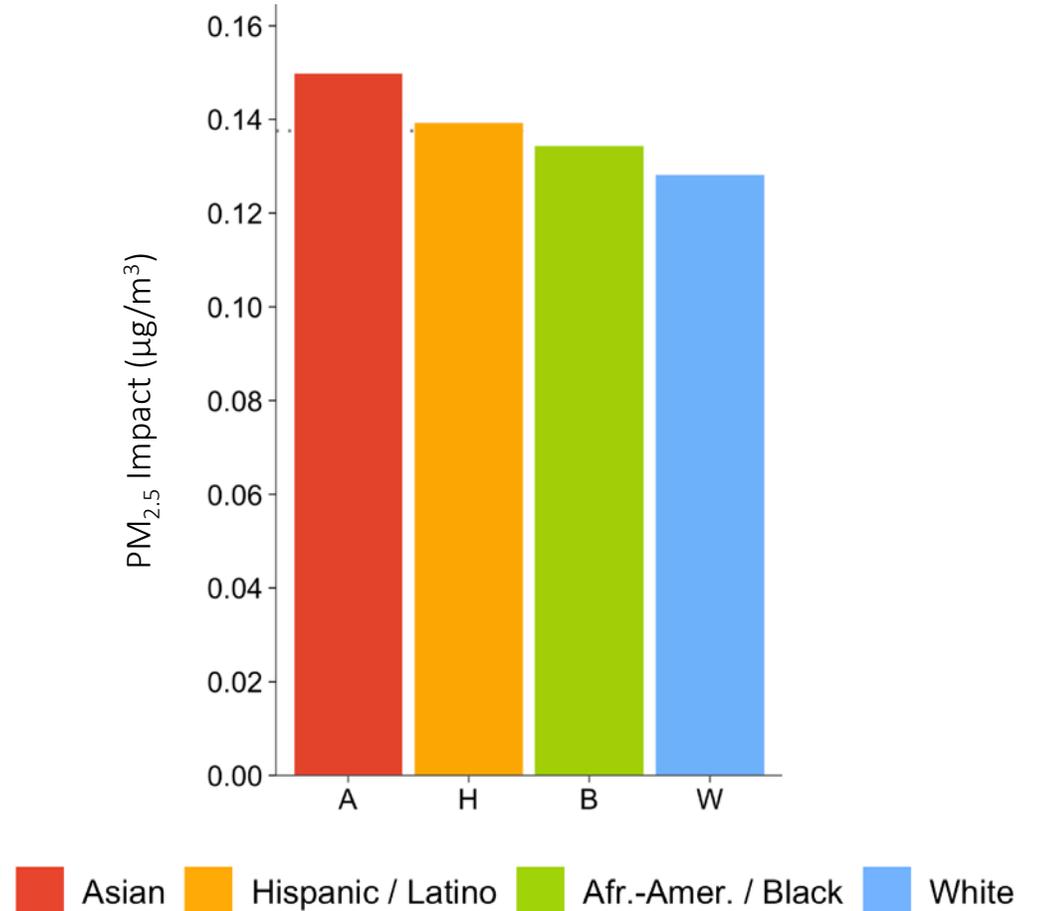
District Residential Natural Gas Combustion NOx Emissions in 2019





Equity Assessment

- The counties most affected by these sources, like Santa Clara, tend to be higher % Asian / Pacific Islander. This explains most of the regional pattern (shown at right).
- Within every county, the most-impacted residents tend also to be people of color: primarily Hispanic and African-American/Black.



Summary of Impacts



- Potential premature deaths avoided: 37–85 deaths per year
- Potential total benefit valuation: \$400–890 million per year
- About 60% of benefits accrue from eliminating NOx emissions
- About 40% from eliminating PM_{2.5} emissions (electric appliances)
- People of color most impacted by PM_{2.5} attributed to combustion of natural gas for residential space and water heating
- Some reduction to peak air pollution levels, relevant to attainment

Building Appliances Rule Amendment Schedule



- Public package released December 20th
- End of Comment period February 6, 2023 (48 days)
- February/March: Staff develop Response to Comments document and prepare final package for Board Hearing
- Board Hearing March 15, 2023



Implementation Working Group

- Purpose: convene group of sector experts, community members, government, labor and others to provide thought leadership on addressing technical and financial barriers to equitable appliance electrification
- Will provide input in support of Air District staff's periodic reporting to the Board on the implementation of amendments to Rules 9-4 and 9-6.
- Kick-off "Meet and Greet" meeting held on December 14th

Proposed State & Federal Funds



Inflation Reduction Act

- \$4.275B for point-of-sale rebates to income-qualified entities
- \$4.3B for energy efficiency home rebates
- 30% tax credits on purchase costs at \$2,000 maximum per year

Governor's Budget

- CA building decarb programs will receive ~\$1B in funds

CPUC programs

- \$84.7M for Self-Generation Incentive Program
- \$1.04B for energy efficiency and fuel-switching programs

Discussion

